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The AP5 Maturity Model

How to get programme management, concept development and evaluation team on the same page.

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Why do we need a Maturity Model

The problem.

Programme management and programme/project negotiators establish project level aims and objectives that do not reflect what can/should be achieved. i.e. too ambitious.

Consequence

Transfer of ideas from R&D to reality is poor (too much confusion)

Qualifiers

Future systems too complex for 'heuristic' approach.

So

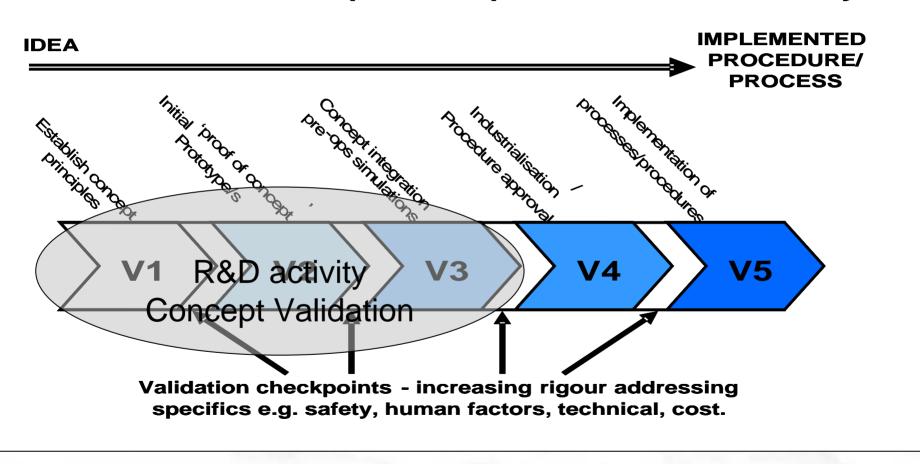
Develop maturity approach so that mangers can understand expected results at each phase.

Scenarios are key development tool.



Maturity model – setting realistic expectations

Action Plan 5 Concept Development Levels of Maturity



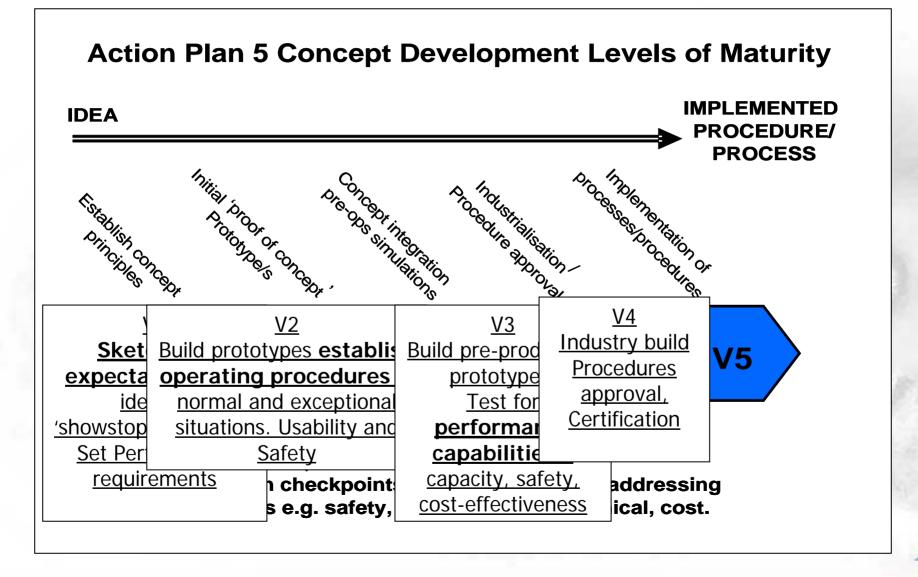


Where do the results go to

Environmental impacts Technology issues Stakeholders Performance capabilities Investors, extracted from 'cases' **Business Case** Operators e.g. Safety Airspace-Users Safety Case Regulators Technology **Human Factors Case Suppliers** Validation Data Repository Workload, usability, **V1 V2 V3** hazard analysis, etc.

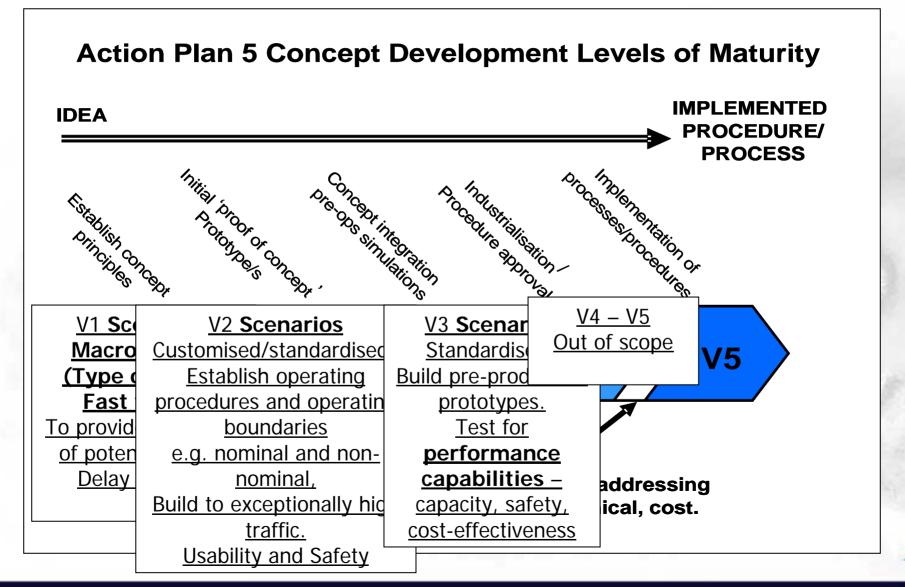


What to expect from each phase





Using scenarios to get results





Some typical scenarios

V1

Macro economic – ECAC wide delay analysis

V2

List of non-nominal, and rare normal cases that should be evaluated in real-time (source - hazard analysis)

Traffic situations – difficult, complex, heavy, - limits testing

V3

Key airspace (ref Most Challenging Environments)



A standard test – for V2 phase

◆An example of a 'standard' rare-normal scenario. Perhaps

for V2 safety



The (in)famous 'Elk test'.



The question

Return to question

Can the Maturity Model be used for developing 'typical' scenarios? Three aspects

- Is the model clear and representative of reality?
- Are the phases realistic?
- ◆ Are the issues to be evaluated (aka. scenarios) in each phase logical?

If 'yes' to all three can we start to determine what sort of typical scenarios should be used for evaluations in each phase?

Can we create lists of typical scenarios that any concept should have been exposed to?



What do you think?

Where to go?

